

RFP No. PT-2671-599428
Exhibit I
Specimen Contract

EXHIBIT I

**MARS SCIENCE LABORATORY
CONTRACT DATA REQUIREMENTS LIST**

Dated: April 27, 2005

*The data/information contained herein has been reviewed and approved for release by
JPL Export Administration on the basis that this document contains no export-
controlled information.*

Mars Science Laboratory

Contract Data Requirements List

EXHIBIT I

April 2, 2004

DELIVERABLE DOCUMENTATION

The documentation deliverable under this Contract is summarized in the following Contract Data Requirements List (CDRL), which identifies the items to be delivered, when delivery is required, the quantity and type of each item, and frequency of issue. The Data Requirement Description (DRD) forms referenced in the CDRL describe the specific requirements for the item(s) to be delivered, reference documents, and other instructions as to content, format, and preparation.

Non-Design Document Identification

The Contractor shall display on the cover or title page of all deliverable non-design documentation (all documents except drawings and specifications) the following minimum information:

- (1) Document title
- (2) Contractor's name
- (3) Contract number
- (4) Document number (JPL and/or Contractor assigned)
- (5) Subsystem or support equipment name, if applicable
- (6) Approval signatures: Contractor and JPL; two (2) spaces for JPL signatures, as appropriate
- (7) Project identification: "MSL"
- (8) Documents containing information pertaining to a subsystem or its support equipment shall use the applicable subsystem or support equipment reference designation number
- (9) Date of issue or publication
- (10) Contract paragraph number and DRD numbers
- (11) Revision or change identification

CDRLs are alphanumerically listed by the following disciplines:

CM	Configuration Management
MA	Mission Assurance
MP	Material and Processes
MS	Management System
RE	Reviews
SS	Systems Safety
SE	System Engineering

CONTRACT DATA REQUIREMENTS LIST

JPL will review documents submitted by the Contractor for JPL approval and approve or provide comments within twenty (20) working days of receipt at JPL, except as otherwise provided for in this Exhibit and the Statement of Work. In the event JPL does not make a formal disposition of a given document within the required twenty (20) days, the document is approved as submitted.

If the draft is approved by JPL, the Contract Negotiator will transmit a letter stating acceptance to the Contractor. The Contractor shall then prepare and deliver final copies as indicated the CDRL.

If the original or draft submittal requires modification before JPL approval will be granted, the following steps will be taken:

1. The modifications required by JPL will be sent to the Contractor in writing by the JPL Contract Negotiator and discussed between the parties.
2. The Contractor shall submit an updated draft, containing the required modifications within twenty (20) working days (or as otherwise specified) after receiving written notice of the required modifications.
3. If the updated draft is approved by JPL, the Contract Negotiator will transmit a letter stating acceptance to the Contractor. The Contractor shall then prepare and deliver final copies as indicated in the CDRL.

Documents conditionally approved shall be resubmitted as final documents if all conditions of approval can be met exactly. If it is not possible to exactly meet the conditions of approval, the Contractor shall resubmit the document with all possible corrections completed and a letter explaining why the remaining corrections could not be made. Unless otherwise specified, re-submittal of data for approval shall be so identified and delivered ten (10) working days after receipt of JPL's comments.

Revisions or updates to any data requirements set forth herein shall be resubmitted to JPL. Unless otherwise specified in the CDRL or DRD, the requirements, approvals and number of required copies of the data items originally submitted shall also be applicable to the revision submittals.

Data Distribution

The number of copies to be delivered is provided in the CDRL. All data shall be delivered by a cover letter of transmittal to the JPL Contract Negotiator.

Date Due

Unless otherwise specified, all periods identified in the CDRL are in calendar days.

CDRL Definitions

In the CDRL form a "yes" designates 'JPL Approval' and shall be interpreted as meaning that the approval of JPL is required before the indicated activity or task can proceed (see discussion above).

A "no" in the CDRL form indicates that JPL will review the document or item in parallel with the activity. The Contractor does not have to obtain JPL approval to proceed with the activity or task.

JPL intends that the Contractor submit material that is already in electronic form via magnetic media (e.g., word processing documents in Microsoft Word).

Abbreviations (applies to all exhibits and the Statement of Work)

ADC	After Date of Contract
AGP	Additional General Provision
AIDS	Assembly, Inspection, and Data Sheet
ARJC	After Receipt of JPL Comments
ATLO	Assembly, Test, and Launch Operations
CDR	Critical Design Review
CDRL	Contract Data Requirements List
C&DH	Command and Data Handling
CM	Configuration Management
CAS	Cost Accounting Standards
CPM	Cost Performance Management
D	JPL Document (D-xxxx)
DA	Direct Access
DS	Design
DSN	Deep Space Network
DPA	Destructive Physical Analysis
DRD	Data Requirement Description
ECR	Engineering Change Request
EIDP	End Item Data Package
EM	Engineering Model
EMI	Electromagnetic Interference
ESD	Electrostatic Discharge
EVRM	Earned Value Resource Management
FTE	Full Time Equivalent
FMECA	Failure Mode Effects and Criticality Analysis
FRD	Functional Requirements Document
FTA	Fault Tree Analysis
G&A	General and Administrative
GFP	Government Furnished Property
GIDEP	Government Industry Data Exchange Program
HRCR	Hardware Review and Certification Record
ICD	Interface Control Document
I-CDR	Instrument Critical Design Review
IDR	Instrument Delivery Review
I-PDR	Instrument Preliminary Design Review
MICD	Mechanical Interface Control Drawing
MIUL	Material Identification and Usage List
MMR	Monthly Management Review
M&P	Materials and Processes
MOS	Mission Operations System
MRB	Material Review Board
MUA	Material Usage Agreements
NCMR	Non-Conformance Material Report

NSPAR	Non-standard Part Approval Request
PDMS	Product Data Management System
PDR	Preliminary Design Review
P/FR	Problem/Failure Report
P-MAP	Preliminary Mission Assurance Plan
PSR	Pre-Ship Review
QA	Quality Assurance
RDD	Release Description Document
SECR	Support Equipment Review and Certification Record
SPF	Single Point Failure
SRCR	Software Review and Certification Record
TBN	To Be Negotiated
TBS	To Be Supplied
TDM	Technical Direction Memorandum
WBS	Work Breakdown Structure
WCA	Worst Case Analysis

Data Requirement Description (DRD) List

Configuration Management (CM)

CM-001	Configuration Management Plan*
CM-002	Hardware End Item Data Package
CM-003	Software End Item Data Package
CM-004	Support Equipment End Item Data Package

Mission Assurance (MA)

MA-001	Mission Assurance Plan
MA-002	Reliability Assurance Plan*
MA-003	Problem/Failure Reporting Plan*
MA-004	Quality Assurance Plan*
MA-005	Software Quality Assurance Plan*
MA-006	Electronic Parts Control Plan*
MA-007	Contamination Control Plan*
MA-008	Materials and Processes Control Plan*
MA-009	Reliability Data
MA-010	Problem/Failure Reports
MA-011	Electronics Parts Data
MA-012	Materials and Processes Data
MA-013	Environmental Test Data and Reports
MA-014	Contamination Susceptibility Analysis
MA-015	Quality Assurance Data and Documentation
MA-016	Software Safety/Hazard/Fault Analysis Plan and Report

Management System (MS)

MS-001	Experiment Implementation Plan
MS-002	Earned Value/Resource Management Plan
MS-003	Experiment Operations Plan
MS-004	Work Breakdown Structure and Dictionary
MS-005	Baseline Earned Value, Cost, Schedule and Workforce Report
MS-006	Detailed Earned Value, Cost, Schedule and Workforce Status Reports
MS-007	Contract Status Report
MS-008	Subcontracting Reports for Individual Contracts

Reviews (RE)

RE-001	Monthly Management Reviews (MMRs)
RE-002	Instrument Preliminary Design Review (I-PDR)
RE-003	Instrument Critical Design Review (I-CDR)
RE-005	Instrument Delivery Review (IDR)
RE-006	Instrument Operations Readiness Review (I-ORR)

Safety Assurance

SS-001	Safety Plan
SS-002	Safety and Health Plan

System Engineering (SE)

SE-001	Instrument Functional Requirements Document (FRD)
SE-002	Instrument Verification and Test Plan

May be included in the Mission Assurance Plan (MA-001)

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DRD NO.	ITEM NO.	TITLE OR DESCRIPTION OF DATA	APPR CODE	FREQUENCY OF ISSUE	DATE DUE TO JPL	QTY.	REMARKS
	<u>CM</u>	<u>Configuration Management</u>					
CM-001		Configuration Management Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	
CM-002		Hardware End Item Data Package	A	Once	10 DB DR	Elec.	
CM-003		Software End Item Data Package	A	Once	10 DB DR	Elec.	
CM-004		Support Equipment End Item Data Package	A	Once	10 DB DR	Elec.	
	<u>MA</u>	<u>Mission Assurance</u>					
MA-001		Mission Assurance Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	
MA-002		Reliability Assurance Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan
MA-003		Problem/Failure Reporting Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan
MA-004		Quality Assurance Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan

ADOC = After Date Of Contract

ARJC = After Receipt JPL Comments

DB = Working Days Before

DA = Working Days After

SR = See Remarks

A = JPL Approval Required

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NOTE: Updates of all documents shall be provided as generated.

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MA-005		Software Quality Assurance (SQA) Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan
MA-006		Electronic Parts Control Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan
MA-007		Contamination Control Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan
MA-008		Materials and Processes Control Plan					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan
MA-009		Reliability Data					
		Draft	X	Once	30 DB PDR	Elec.	
		Final	A	Once	30 DB CDR	Elec.	This can be a stand alone plan or incorporated into the Mission Assurance Plan

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MA-010		Problem/Failure Reports (P/FRs)	A	As Required	1 DA Anomaly	Elec.	
MA-011		Electronic Parts Data	A	AS Required	As Generated	Elec.	NSPARs, Waivers, Failure analysis reports and Contractor parts specifications to be submitted as generated to support parts lists approval requirements.
		Preliminary Parts List	X	Initial + quarterly updates	30 days prior to PDR		
		As-Designed Parts List	A	Initial + quarterly updates	30 days prior to CDR		
		As-Built Parts List	A	Once	30 days prior to DR		
MA-012		Materials and Processes Data	A	As Required	As Generated	Elec.	
		Preliminary MIULs	X	Initial + quarterly updates	30 days prior to PDR		
		As-Designed MIULs	A	Initial + quarterly updates	30 days prior to CDR		
		As-Built MIULs	A	Once	30 days prior to DR		
		Preliminary MUAs	X	Initial + quarterly updates	30 days prior to PDR		
		As-Designed MUAs	A	Initial + quarterly updates	30 days prior to CDR		
		As-Built Parts MUAs	A	Once	30 days prior to DR		

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MA-013		Environmental Test Data and Reports					
		ETAS Part 1	A	As Generated	5 DB to test	Elec.	
		ETAS Part 2	A	As Generated	5 DA test	Elec.	
		EACS	A	As Generated	10 DB CDR	Elec.	
		RACS	A		10 DA completion of analysis	Elec.	
MA-014		Contamination Susceptibility Analysis					
		Initial	A	Once	30 DB PDR	Elec.	
		Updates	A		30 DB CDR	Elec.	
MA-015		QA Data and Documentation Manufacturing, Inspection, and Test Flow Plan Preliminary Final QA Supporting Documentation	 X A A	 Once Once As Required	 One week before PDR See Remarks See Remarks	 Elec. Elec. Elec.	 Within 10 days after receipt of JPL comments. Provide copies or make available for review at Contractor's facility within 10 days after the request
MA-016		Software Safety/Hazard/Fault Analysis Plan and Report					
		Preliminary Plan	A	Once	30 DB PDR		
		Final Plan	A	Once	30 DB CDR		
		Preliminary Report	A	Once	30 DB CDR		
		Final Report	A	Once	30 DB DR		
	MS	Management System					
MS-001		Experiment Implementation Plan	A	Once	Selection + 3 months	Elec.	
MS-002		Earned Value/Resource Management Plan	A	Once	Selection + 3 months	Elec.	
MS-003		Experiment Operations Plan					
		Draft					
		Final	A	Once	30 DB CDR	Elec.	

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MS-004		Work Breakdown Structure and Dictionary					
		Draft	X	Once	Selection + 3 months		
		Final	A	Once	30 DB PDR		
MS-005		Baseline Earned Value, Cost, Schedule and Workforce Report					
		Phase A/B (if contract value > \$25M)	A	Once	Selection + 3 months		
		Phase C/D (if contract value > \$25M)	A	Once	30 DB PDR		
MS-006		Detailed Earned Value, Cost, Schedule, and Workforce Status Reports	X	Monthly	20th day of each month	Elec.	To be included in MMR pkg
MS-007		Contract Status Report (533M and 533Q)					Electronic submission
		533 M Reports	X	Monthly	15th day of each month	Elec.	acceptable if signature
		533 Q Reports	X	Quarterly	15th day of month/qtrly	Elec.	incorporated

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MS-008		Subcontracting Reports for Individual Contracts (SF294 and SF295)					Electronic submission
		SF 294	X	Semi-annually	6 mos. ADOC		acceptable if signature
		SF 295	X	Annually	12 mos ADOC		incorporated
	RE	Reviews					
RE-001		Monthly Management Reviews (MMRs)	X	Monthly			
RE-002		Preliminary Design Review (PDR)		Once	April 2006		
RE-003		Critical Design Review (CDR)		Once	June 2007		
RE-005		Delivery Review (DR)		Once	April/May 2008		
RE-006		Operations Readiness Review (ORR)		Once	May 2009		
	SA	Safety					
SS-001		Safety Plan					
		Draft	X	Once	30 DB I-PDR	Elec.	
		Final	A	Once	30 DB I-CDR	Elec.	This can be a stand alone plan or incorporated into the Experiment Implementation Plan
SS-002		Safety and Health Plan					
		Final	A	Once	Selection + 3 months	Elec.	
	SE	System Engineering					
SE-001		Functional Requirements Document (FRD)					
		Draft	X	Once	Selection + 3 months	Elec.	
		Final	A	Once	30 DB PDR	Elec.	
SE-002		Instrument Verification and Test Plan	A	Once	30 DB CDR		

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